

**IN THE SPECIFICATION****Please amend the Specification as follows:**

Please delete paragraph [0013] and replace it with the following paragraph.

[0013] According to still another preferred embodiment of the present invention, the polymerization process is conducted by the essentially continuous passage of monomer gases through the polymerization zone of a gas phase fluidized bed reactor that contains a fluidized bed of polymer particles. According to this embodiment, the process for transitioning from a first polymerization reaction conducted in the presence of a first catalyst system to a second polymerization reaction conducted in the presence of a second catalyst system, comprises:

- a) discontinuing the introduction of the first catalyst system into the reactor;
- b) introducing a poison, inhibitor or retarder to the first catalyst system to inhibit the first polymerization reaction;
- c) lowering the height of the bed of polymer particles from a first height to a second height;
- d) essentially concurrently with the lowering of the height of the bed of polymer particles the partial pressure of the monomer gases within the polymerization zone is reduced from a first partial pressure to a second lower partial pressure;
- e) essentially concurrently with the lowering of the height of the bed of polymer particles the velocity of the monomer gases passing through the reactor is modified from a first velocity to a second velocity;
- f) introducing the second catalyst system into the reactor;
- g) increasing the height of the bed of polymer particles to a level above the level of the second height; and
- h) essentially concurrently with the increase of the height of the bed of polymer particles to the second height, the partial pressure of the monomer gases within

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the polymerization zone is increased to a level above the second partial pressure and the velocity of the monomer gases passing through the reactor is adjusted to the first velocity.

Another embodiment of the invention is a process for transitioning from a first polymerization reaction ~~product~~ producing a first polymer to a second polymerization reaction producing a second polymer, wherein both the first and second polymers are produced in presence of the same polymerization catalyst system, the polymerization reaction being conducted in a polymerization zone of a gas phase fluidized bed reactor that contains a fluidized bed of polymer particles by the essentially continuous passage of monomer gases through the polymerization zone and the polymers are discharged from the reactor into a discharge system, comprising:

- a) discontinuing the introduction of the catalyst system into the reactor;
- b) lowering the height of the bed of polymer particles from a first height to a second height by controlling the discharge system to provide an increased discharge rate;
- c) setting the reactor conditions to produce the second polymer; and
- d) increasing the height of the bed of polymer particles to a level above the level of the second height.

Please delete paragraph [0044] and replace it with the following paragraph.

[0044] During product transition, a large quantity of off-grade product is generated in a fluidized bed polymerization reactor because of the continuous stirred reactor mixing pattern of the particle phase. Reducing the reactor inventory by lowering the level of the fluidized bed during product transition is an efficient way to reduce the quantity of off-grade product. However, low bed level operation of a fluidized bed reactor is limited by the occurrence of fouling and sheeting on the reactor wall above the fluidized bed level. While not desiring to be limited to a particular mode of operation, it is believed that fouling and sheeting is initiated and caused by fines entrained from the fluidized bed. Accordingly, if the entrainment of fines can be significantly reduced, fouling and the formation of sheets could be eliminated or substantially reduced. The present embodiment of the invention, provides various techniques for reducing entrainment of

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fines during product transition. Specifically, the techniques for reducing entrainment of fines include:

1) reducing the cycle gas velocity to about 1 to about 1.5 ft/sec or from about 1.5 to about 10 times, preferably from about 3 to about 8 times the minimum velocity required to fluidize particles (which varies with bulk density);

2) reducing the total reactor pressure to a pressure in the range of about 50 to about 250 psi;

3) reducing the cycle gas density to a density in the range of about 0.5 to about 1.2 lb/ft<sup>3</sup>;

4) increasing the average particle size of the polymer product to a size in the range of about 0.025 to about 0.15 inches;

5) narrowing the particle size distribution to have from about 0 to about 2 weight-percent of fines passing US 120 mesh or where; or about 0 to about 2 weight-percent of fines are less than 125 microns;

6) changing the particle morphology to reduce the sphericity of the particles to a sphericity in the range of 0.3 to 0.7 (wherein 1.0 is indicative of perfectly spherical particles).